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Jill
Olson/DWOR/R1/FWS/DOI
09/11/2012 03:52 PM

To "Walter, Damian J NWW" <Damian.J.Walter@usace.army.mil>
cc "Setter, Ann L NWW" <Ann.L.Setter@usace.army.mil>, "Leskowich, Arthur F NWW" <Arthur.F.Leskowich@usace.army.mil>, "Boen, Cindy A
bcc
Subject Re: Dworshak FFCA (UNCLASSIFIED)

Greetings to each of you,

We need to get together to discuss some recent modifications that we have made to the facility. We would like to schedule a walk of the facility on or before October 1 to show what has been done. Please see attached memo.

coverletter120911.doc

Sincerely,

Jill Olson
Fish Biologist
Dworshak NFH
Ahsahka, ID 83520
ph. (208)476-2238

Attn. Chris Gebhardt
208 553-1280

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Dworshak Fisheries Complex
276 Dworshak Complex Road
Orofino, ID 83544
Phone: (208) 476-4591 FAX: (208) 476-3252

September 11, 2012

U.S. Environmental Protection Agency
Region 10 OWW-130
1200 Sixth Avenue, Suite 900
Seattle, WA 98101
ATTN: Chris Gebhardt

NPDES Permit No. IDG131003

RE: Modifications to System III Water Treatment and Pipeline Failure Emergency Plans

The EPA, US Fish and Wildlife Service and the Army Corps of Engineers (ACOE) completed a FFCA for Dworshak National Fish Hatchery (DNFH) in 2011. In the FFCA 34 of the rearing units, referred to as System III, were identified as having a lack of infrastructure to allow cleaning water to be treated prior to discharge to the Clearwater River. Under the agreement DNFH was tasked with either discontinuing the use of this system or developing a means of treating cleaning water. Since signing the agreement, staff at DNFH devised a method whereby both the full-flow water and the cleaning water can be diverted to the System III bio-filters during cleaning operations. However, the size of the basin restricts DNFH to cleaning only one half of System III at a time.

In July of 2012 modifications were made to the discharge piping from the System III bio-filters and a submersible pump was installed into the effluent channel from the bio-filter basin. The supernatant was pumped into a sump which allowed it to be mixed with full-flow water from the ladder and attraction channel. The ladder and attraction channel discharge to the North Fork of the Clearwater. The concentrated solids that settled out in the bio-filter channel were pumped by a second pump to the off-line settling basin. On July 31, 2012 samples were taken to test how efficient the bio-filters were when used as a settling basin, and to test the quality of the water at the discharge point.

Four grab samples were collected from each of three sample locations and composited. At the time of sampling up to 8 people were cleaning. A total of fifteen rearing units were discharging full-flow and cleaning waste to the bio-filters. Test results:

Discharge from System III- 15 ponds (influent to the bio-filters)	TSS	16.2 mg/l
Discharge to System III sump (discharge from the bio-filters)	TSS	5.22 mg/l
Discharge to NF Clearwater (combined with other full-flow water)	TSS	2.14 mg/l

(Full-flow limits are an average monthly net gain of 5 mg/l; maximum daily net 10 mg/l)

The removal rate for TSS (effluent - influent into the bio-filters) was 87%.

Samples were also taken for Total Ammonia as Nitrogen and Total Phosphorus. Based on the sampling results, the basin was able to treat the full-flow and cleaning waste from 15 ponds for 45-minutes not exceeding the TSS or phosphorus limitations of our NPDES permit; results from the July 31 testing are reported in an attachment to the August DMR.

On August 15, shortly after the modification to System III, managers at DNFH were notified that one of two reservoir intake structures had been damaged when a suspension cable broke. The reservoir line is the source water for the Clearwater Fish Hatchery which is operated by the Idaho Department of Fish and Game. Due to the loss of water, it was determined that the best option for the survival of the fish was to transfer 2.5 million Chinook salmon to Dworshak NFH until their final release in March, 2013. Dworshak has rearing space; however the flow from each pond cannot be operated independently and the System III settling basin is too small to treat the discharge from all 34 ponds. Concerns were that DNFH would be out of compliance with both the NPDES permit and the FFCA as cleaning waste would again be directly discharged to the river.

During the week of September 7 bids were submitted to the FWS regional office for the removal of media from the System II bio-filter/settling basin. Its removal increases the holding capacity of the basin and reduces the likelihood that media will be discharged to the settling pond and potentially to the river. Concurrently, a capped 30 inch line was discovered on facility as-built prints. The line has been excavated and joined to a 42 inch line which previously discharged only excess water from the aeration chamber to the Clearwater River (Outfall 017). The connection allows removal of a larger quantity of full-flow water from Systems I, II, and III. Since the pipe modification, DNFH staff is establishing new best practices. Prior to cleaning, water in the filter beds is drawn down and gates restricting full-flow water from System II, and the side of System III not being cleaned, are closed diverting the clean, full-flow water to outfalls 007 and 017. We have determined is it necessary to clean the north and south banks of System III and System II on separate days. The procedure allows us to treat water from up to 18 System III rearing units in the filter-bed/settling basin, reducing the likelihood of flooding the system.

Please contact us if you have further questions or concerns.

Sincerely,

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cc. Idaho Department of Environmental Quality, Regional Manager- Water Quality Division, 1118 F Street, Lewiston, ID 83501 ATTN: John Cardwell, Jerry Schaffer